Mean S/creat	Control [95% CI] (n = 294)	Risk [95% CI] (n = 28)	Injury [95% CI] (n = 10)	Sig p value
3-months	148.5 [139.7–157.4]	156.3 [130.1–182.6]	136.4 [104.6–168.2]	0.755
12-months	138.2 [128.6–147.7]	139.8 [117.2–162.1]	120.7 [98.0–142]	0.764
24-months	140.4 [127.2–153.5]	161.4 [118.4–204.5]	122.4 [95–155]	0.555

O117 EARLY RESULTS OF DUAL KIDNEY TRANSPLANTATION – EXPANDING THE DONOR POOL

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Background: The most common reason for declining potential kidney donors is age coupled with Diabetes Mellitus (DM) and/or Hypertension (HTN). The implantation of both kidneys from such donors into a single patient can provide a positive result. Materials & Methods

Donors considered for DKT included: 1) DBDs older than 70 with DM, HTN or both, 2) DCDs older than 65 with DM, HTN or both, and 2) all DCD donors older than 70. Recipient exclusion criteria included: history of DM, Adult Polycystic Kidney Disease, severe Cardiovascular Disease, Clopidogrel/ Warfarin therapy and BMI >31. Both kidneys were implanted on the same side. We compared outcomes of consecutive DKT performed between 6/2010 and 5/2014 with single kidney transplants from matched donors. Data was collected prospectively in a computerised database and function, survival and complication rates were calculated.

Results: 34 recipients received DKTs (88% DCDs) and 51 ECDs were transplanted over that period. The median recipient age for DKTs was 67.5 (52 – 80) compared to 65 (38 – 75) in the control (p = 0.02). Mean eGFR was significantly higher at six months (44.6 vs 35.4, p = 0.005) and one year (46.7 vs 34.9, p = 0.0009). This difference increases when comparing the donors over 70 years of age (at 6 months 46.4 vs 35.6, p = 0.006, & at 12 months 46.5 vs 34.3, p = 0.0005). The DKT group had lower Delayed Graft Function rate (79% vs 82%, p = 0.73), though Primary non-function had a higher incidence (9% vs 2%, p = 0.14). One-year graft survivals for the DKT and matched groups was 88% and 96%, whereas 4-year graft survival 88% and 87% (p = 0.47). One-year patient survival 93% and 98%, while 4-year survival was 75% and 86% (p = 0.13).

Conclusion: Function of grafts from older donors with HTN and DM, which are still considered 'not suitable for transplant' is significantly superior if performed as DKT. Graft function and survival are also improved.

O118 INCREASED RISK OF INTERSTITIAL FIBROSIS AND TUBULAR ATROPHY IN CONTROLLED DONATION AFTER CIRCULATORY DEATH KIDNEY TRANSPLANTATION

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Introduction: Comparable transplant outcomes between controlled donation after circulatory death (cDCD) and donation after brain death (DBD) kidney transplantation (KT) have been confirmed. However, few data describes the histology of cDCD-KT which is subjected to prolonged procurement warm ischemia. This study aimed to evaluate the rate of interstitial fibrosis (IF) and tubular atrophy (TA) on the surveillance biopsy performed in our unit between the 2 and 6 months post KT. Acute rejection was considered as secondary endpoint.

Patients and Methods: 330 KT (226 DBD and 104 DCD) have been performed between 2008 and 2014. Surveillance or per-cause biopsy was performed in 272 recipients. Among them, the rate of adequate (≥8 glomeruli and ≥1 large-sized artery) was 76.8%.

Results: IFTA was found in 11.5% and 25.7% of DBD and cDCD-KT, respectively (p = 0.004). Considering IF and TA separately, the corresponding rates were 20.4% vs 32% (p = 0.04) and 23% vs 36% (p = 0.03), respectively. If acute rejection before routine biopsy was excluded, either IF or TA rate was significantly higher in cDCD- than DBD-KT (12.6% vs 27.1%, p = 0.006; 17.6% vs 31.4%, p = 0.016; and 20.9% vs 35.7%, p = 0.015 in case of IF-TA, IF, and TA, respectively). A cDCD-KT compared to a DBD-KT was 3.11 (95%CI 1.51–6.43, p = 0.002), 2.34 (95%CI 1.21–4.53, p = 0.011) and 2.29 (95%CI 1.23–4.27, p = 0.009) times more likely to have IFTA, IF, and TA, respectively. Extended criteria donor (ECD) vs standard criteria donor (SCD) was also an independent risk factor for IFTA (OR = 3.11, 95%CI 1.51–6.43, p = 0.002), IF (OR = 4.86, 95%CI 1.96–12.05, p = 0.001), and TA (OR = 4.09, 95%CI 1.68–9.93, p = 0.002). The rate of acute rejection diagnosed by SB was 7.1% and 8.9% in DBD and cDCD kidney grafts (p = ns), respectively.

Conclusion: KT from cDCD increased the risk of IF-TA between 3 and 6 months post-transplant. Further studies are warranted to investigate the evolution of this phenomenon over time and its effect on graft function.

O119 CAPILLARY C4D PREDICTS ADVERSE KIDNEY TRANSPLANT PERFORMANCE INDEPENDENTLY OF MORPHOLOGICAL LESIONS SUGGESTIVE OF ANTIBODY-MEDIATED REJECTION

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Background: Recent data supporting a role of C4d-negative antibody-mediated rejection (AMR) have questioned the diagnostic significance of C4d staining as an independent rejection marker. Nevertheless, considering the presumed role of complement as an important effector of humoral rejection, C4d staining, in addition to a histomorphological biopsy work-up, could help identify a more severe form of AMR.

Methods: This large retrospective clinico-pathological study sought to assess the predictive value of C4d staining on graft survival and function in relation to AMR morphology. Overall, 885 renal transplant recipients subjected to one or more indication biopsies (n = 1976) were re-evaluated for linear capillary C4d staining and the presence of distinct morphological lesions suggestive of AMR, icluding glomerulitis, peritubular capillaritis, capillary microthrombi, transplant glomerulopathy, and severe intimal arteritis.

Results: C4d-positive patients, with or without AMR features, had worse death-censored eight-year graft survival (53% or 67%) than C4d-negative patients (67% or 81%; p < 0.001). In Cox regression analysis, C4d posed a risk of graft loss independently of baseline confounders and AMR morphology [hazard ratio: 1.85 (95% confidence interval: 1.34–2.57), p < 0.001]. Moreover, in a mixed model, C4d was independently associated with a steeper decline of estimated glomerular filtration rate (slope per year: −8.23 ± 3.97 ml/min/1.73 m2, p < 0.001). As shown in a multivariable spline interaction model, C4d conferred a particular risk of graft loss, additively to the effects of AMR morphology.

Conclusions: Our study supports the concept that detection of intragraft complement activation represents a specific AMR marker indicating adverse kidney transplant outcomes.

O120 DIFFUSE PERITUBULAR CAPILLARITIS IN RENAL ALLOGRAFT REJECTION: AN INDEPENDENT RISK FACTOR FOR GRAFT LOSS

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Background: According to the Banff classification the score of peritubular capillaritis (ptc), its extent and its cellular composition should be routinely reported in renal allograft pathology. While ptc score represents an important diagnostic and prognostic variable, the clinical value of ptc extent or composition has yet to be determined.

Methods: This retrospective study included 749 renal transplant recipients subjected to 1322 indication biopsies. The effect of ptc and its qualities on graft loss was estimated using proportional hazards Cox regression models. Potential confounders for multivariate analysis were: baseline immunosuppression, C4d positive graft dysfunction, acute T-cell mediated rejection = Banff ≥Ia, re-transplantation, HLA mismatch and pre-sensitization (CDC PRA >10%).

Results: The prevalence of ptc scores 1, 2 or 3 in biopsy specimens was 10.7%, 11.6% and 2.6%, while focal and diffuse ptc (inflammation of >50% of cortical PTC in the biopsy core) was diagnosed in 10.5% vs. 14.4%, respectively. Mononuclear, granulocytic and mixed ptc was present in 13.1%, 3.3% and 8.5%, respectively. While ptc without further sub-classification was not related to higher allograft loss rates, ptc 3 [HR = 2.57 (CI: 1.25–5.28), p